

p. 516

The present invention relates to MIDI (Musical Instrument Digital Interface) and an operation method thereof, and also relates to an optical disk (including a recordable and a rewritable optical disk) including a CD-ROM (compact read only optical disk) for the MIDI and a recording method therefor.

p. 519

As shown in Fig. 3, a CD-ROM is recorded with not only musical performance files but also a data row A according to ISO 9660 and a disk structure file B. The ISO 9660 data row A starts from a position of zero minute, zero second on the CD-ROM. The details thereof will be explained later. The disk structure file B is a set of fundamental information (a kind of directory information) on each musical performance file recorded on the CD-ROM. This fundamental information includes a data type, a file name (title of music), a position on the CD-ROM, and a size, and the like. Each musical performance file is accessed using this fundamental data. The musical performance file stores constant data such as a tempo and a velocity, program data for a MIDI player such as an order of play and variation

information of a speed, and MIDI data representing the content of the musical performance. The file name of the disk structure file B and the position thereof on the CD-ROM are previously determined.

p. 520

When the CD-ROM recorded in accordance with the above first aspect is used, a MIDI player 10 reads a specified musical performance file from the CD-ROM in accordance with the procedure shown in Fig. 5.

First, the MIDI player 10 reads a primary VD (step 31), and can obtain the position of the disk structure file B on the basis of the data recorded in an application reserved area of the primary VD having been read (step 32). The MIDI player 10 accesses the position to read the disk structure file B, and stores the disk structure file B to a memory (step 33). The MIDI player 10 searches the read disk structure file B for a given title of music, and can obtain data representing the position of the musical performance file having that title of music (step 34). Then, the MIDI player 10 reads the musical performance file having that title of music from the CD-ROM (step 35). By repeating the processings in steps 34 and 35, a musical performance file having a given title of music can be arbitrarily and repeatedly read.

p. 523

Fig. 5

- 1 START
- 2 READ PRIMARY VD
- 3 OBTAIN POSITION OF DISK STRUCTURE FILE FROM
APPLICATION RESERVED AREA
- 4 READ DISK STRUCTURE FILE, AND STORE DISK STRUCTURE
FILE TO MEMORY
- 5 OBTAIN POSITION OF MUSICAL PERFORMANCE FILE HAVING
SPECIFIED TITLE OF MUSIC FROM DISK STRUCTURE FILE
- 6 READ DATA OF MUSICAL PERFORMANCE FILE